
**INFORMATION DISCLOSURE  
CITATION**

ATTY. DOCKET NO.

117-480

APPLICANT

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October 7, 2003

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10/679,692

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1652

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
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BR						

**FOREIGN PATENT DOCUMENTS**

DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
CR	WO 02/080980	10/2002	WIPO		

**OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)**

DR	Aguilar et al. "Crystal structure of the $\beta$ -glycosidase from the hyperthermophilic archeon <i>sulfolobus solfataricus</i> : Resilience as a key factor in thermostability" J. Mol. Biol. 271:789-802 (1997)
ER	Andrews et al. "Substrate specificity in glycoside hydrolase family J. Biol. Chem. 275:23027-23033 (2000)
FR	Babcock et al. "Facile preparation of unsymmetric carbodiimides via <i>in situ</i> Tin(II)-mediated heterocumulene metathesis" J. Am. Chem. Soc. 120:5585-5586 (1998)
GR	Banner et al. "Structure of chicken muscle triose phosphate isomerase determined crystallographically at 2.5Å resolution" Nature 255:609-614 (1975)
HR	Barton et al. "Structure, mechanism and engineering of a nucleotidyltransferase as a first step toward glycorandomization" Nature Struct. Biol. 8:545-551 (2001)
IR	Breidt et al. "Nucleotide and deduced amino acid sequences of the <i>staphylococcus aureus</i> phospho- $\beta$ galactosidase gene" Appl. Environ. Microbiol. 53:969-973 (1987)
JR	Cairns et al. "Primary structure of the dalcocochinin-8'-O-beta-glucoside beta-glucosidase from the thai Rosewood <i>Dalbergia cochinchinensis pierre</i> " TREMBL:Q9SPK3
KR	Corbett et al. "Tailoring the substrate specificity of the $\beta$ -glycosidase from the thermophilic archaeon <i>sulfolobus solfataricus</i> " FEBS Lett. 509:355-360 (2001)
LR	Crout et al. "Glycosidases and glycosyl transferases in glycoside and oligosaccharide synthesis" Curr. Opin. Chem. Biol. 2:98-111 (1998)
MR	Cubellis et al. "Isolation and sequencing of a new $\beta$ -galactosidase-encoding archaebacterial gene" Gene 94:89-94 (1990)
NR	Davis "Recent developments in oligosaccharide synthesis" J. Chem. Soc., Perkin Trans. 1:2137-2160 (2000)
OR	Fort et al. "Highly efficient synthesis of $\beta$ (1 $\rightarrow$ 4)-oligo and polysaccharides using a mutant cellulase" J. Am. Chem. Soc. 122:5429-5437 (2000)
PR	Henrissat "A classification of glycosyl hydrolases based on amino acid sequence similarities" Biochem. J. 280:309-316 (1991)
QR	Inoue et al. "Molecular cloning and bacterial expression of cDNA encoding furostanol glycoside 26-O- $\beta$ -glucosidase <i>Costus speciosus</i> " FEBS Lett. 389:273-277 (1996)
RR	Kaper et al. "Comparative structural analysis and substrate specificity engineering of the hyperthermostable $\beta$ -glucosidase CelB from <i>Pyrococcus furiosus</i> " Biochem. 39:4963-4970 (2000)
SR	Koeller et al. "Emerging themes in medicinal glycoscience" Nature Biotechnol. 18:835-841 (2000)
TR	Kren et al. "Glycosylation employing bio-systems: From enzymes to whole cell" Chem. Soc. Rev. 26:463-473 (1997)
UR	Krstenansky et al. "Biocatalytic combinatorial synthesis" Bioorganic & Medicinal Chemistry 7:2157-2162 (1999)
VR	Mackenzie et al. "Glycosynthases: Mutant glycosidases for oligosaccharide synthesis" J. Am. Chem. Soc. 120:5583-5584 (1998)
WR	Malet et al. "From $\beta$ -glucanase to $\beta$ -glucansynthase: Glycosyl transfer to $\alpha$ -glycosyl fluorides catalyzed by a mutant endoglucanase lacking its catalytic nucleophile" FEBS Lett. 440:208-212 (1998)
XR	Mantei et al. "Complete primary structure of human and rabbit lactase-phlorizin hydrolase: Implications for biosynthesis, membrane anchoring and evolution of the enzyme" EMBO J. 7:2705-2713 (1988)

\*Examiner

Sphal Chaudhary 9/15/03


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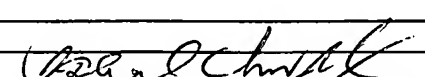
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<b>OTHER DOCUMENTS (including Author, Title, Date, Pertinent pages, etc.)</b>						
JR	AR		Mayer et al. "The E358S mutant of <i>Agrobacterium</i> sp. $\beta$ -glucosidase is a greatly improved glycosynthase" FEBS Lett. 466:40-44 (2000)			
JR	BR		Moracci et al. "Identification of two glutamic acid residues essential for catalysis in the $\beta$ -glycosidase from the thermoacidophilic archaeon <i>Sulfolobus solfataricus</i> " Protein Engineering 9:1191-1195 (1996)			
JR	CR		Moracci et al. "Expression and extensive characterization of a $\beta$ -glycosidase from the extreme thermoacidophilic archaeon <i>Sulfolobus solfataricus</i> in <i>Escherichia coli</i> . Authenticity to the recombinant enzyme" Enzyme and Microbial Technology 17:992-997 (1995)			
JR	DR		Moracci et al. "Restoration of the activity of active-site mutants of the hyperthermophilic $\beta$ -glycosidase from <i>Sulfolobus solfataricus</i> : Dependence of the mechanism on the action of external nucleophiles" Biochem. 37:17262-17270 (1998)			
JR	ER		Michels et al. "Combinatorial biocatalysis: A natural approach to drug discovery" Trends Biotechnol. 16:210-215 (1998)			
JR	FR		Nashiru et al. " $\beta$ -mannosynthase: Synthesis of $\beta$ -mannosides with a mutant $\beta$ -mannosidase" Angew. Chem. Int. Ed. 40:417-421 (2001)			
JR	GR		Nucci et al. "Exo-glucosidase activity and substrate specificity of the $\beta$ -glycosidase isolated from the extreme thermophile <i>Sulfolobus solfataricus</i> " Biotechnol. Appl. Biochem. 17:239-250 (1993)			
JR	HR		Palcic "Biocatalytic synthesis of oligosaccharides" Curr. Opin. Biotechnol. 10:616-624 (1999)			
JR	IR		Pisani et al. "Thermostable $\beta$ -galactosidase from the archaebacterium <i>Sulfolobus solfataricus</i> " Eur. J. Biochem. 187:321-328 (1990)			
JR	JR		Prade et al. "Enzymatic synthesis of disaccharides using <i>Agrobacterium</i> sp. $\beta$ -glucosidase" Carbohydrate Res. 305:371-381 (1998)			
JR	KR		Rantwijk et al. "Glycosidase-catalysed synthesis of alkyl glycosides" J. Mol. Catal. B: Enzym. 6:511-532 (1999)			
JR	LR		Rye et al. "Glycosidase mechanisms" Curr. Opin. Chem. Biol. 4:573-580 (2000)			
JR	MR		Scigelova et al. "Glycosidases - a great synthetic tool" J. Mol. Catal. B: Enzym. 6:483-494 (1999)			
JR	NR		Trincone et al. "A novel thermophilic glycosynthase that effects branching glycosylation" Bioorganic & Medicinal Chem. Lett. 10:365-368 (2000)			
JR	OR		Voorhorst et al. "Characterization of the <i>celB</i> gene coding for $\beta$ -glucosidase from the hyperthermophilic archaeon <i>Pyrococcus furiosus</i> and its expression and site-directed mutation in <i>Escherichia coli</i> " J. Bacteriol. 177:7105-7111 (1995)			
JR	PR		Watt et al. "Enzyme-catalyzed formation of glycosidic linkages" Curr. Opin. Struct. Biol. 7:652-660 (1997)			
JR	QR		Wymer et al. "Enzyme-catalyzed synthesis of carbohydrates" Curr. Opin. Chem. Biol. 4:110-119 (2000)			
JR	RR		Xue et al. "The glucosinolate-degrading enzyme myrosinase in <i>Brassicaceae</i> is encoded by a gene family" Plant Mol. Biol. 18:387-398 (1992)			
JR	ST		Zhang et al. "Directed evolution of a fucosidase from a galactosidase by DNA shuffling and screening" Proc. Natl. Acad. Sci. USA 94:4504-4509 (1997)			
	TR					
	UR					
	VR					
*Examiner						

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